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Abstracts

77th Meeting of Ulster Society of Internal Medicine, Friday 18th May 2007.

Clinical Education Centre, Altnagelvin Area Hospital, Londonderry.

PROGRAMME

1.55pm Welcome - Chairman: Dr David Higginson

2.00pm Plenary I – presented abstracts

3.00pm Invited Abstract: "Fits, falls and faints" Dr Kevin Dynan Consultant Physician, COTE, Ulster Hospital.

3.25pm Afternoon Tea

3.40pm Two case presentations from Altnagelvin Area Hospital

4.00pm Plenary II - presented abstracts.

4.20pm Presentation of prize for best abstract

4.25pm Guest lecture: "Modern management of Arial fibrillation" Dr Carol Wilson, Consultant Cardiologist, Royal Victoria Hospital.

PRESENTED ABSTRACTS

1. The Experience of Lay First Responders in the Northern Ireland Public Access Defibrillation (NIPAD) Project.

AJ Hamilton[1] JE Jordan[2], MJ Moore[1], K Cairns[3], AAJ Adgey[1], F Kee[4].

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Objective: The Northern Ireland Public Access Defibrillation (NIPAD) project was established to train lay volunteers as First Responders (FRs) in the use of an automated external defibrillator (AED) at an out of hospital cardiac arrest (OHCA). We wished to establish the background and experience of the FRs.

Methods: A questionnaire was distributed to FRs with a pre-paid reply envelope and a follow up reminder letter was sent to non-respondents after six weeks.

Results: There were 178 questionnaires returned of whom 71/178 (39.9%) were male. The mean age of the FRs was 45.9 yrs (SD 10.7). The education level of the FRs was assessed: 49/178 (27.5%) had received no school education after age 16 and 60/178 (33.7%) were educated at university.

Basic medical skills prior to enrolling in the NIPAD project were assessed. 30/178 (16.9%) had no previous first aid training, 45/178 (25.3%) had participated in a basic first aid course, 81/178 (45.5%) had training in basic life support and 17/178 (9.6%) had training in advanced life support.

Following training 163/178 (91.6%) felt "totally confident" or "reasonably confident" in using an AED at the scene of an OHCA. No volunteer considered the AED difficult to use. In total 34/178 (19.1%) of FRs were willing to hold an AED permanently. No FR required the use of the confidential counselling service employed by the project.

Conclusion: First Responders can be recruited from a variety of backgrounds. The First Responders reported the AED to be easy to use following training.

2. Infective discitis in a District General Hospital

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Infective discitis is a serious but treatable cause of back pain in adults. We report a series of cases presenting to a district general hospital over a three year period (2004-6). We reviewed case notes of eleven patients with a discharge coding diagnosis of 'discitis', and extracted clinical information: symptoms, predisposing factors, radiological imaging, time to diagnosis, microbial organisms, antibiotic therapy and functional outcome.

All eleven patients (mean age 62 yrs, range 45-90) reported back pain at presentation. Pyrexia >37.5 was present in 10 patients with a mean CRP of 252 mg/l (range 101-560). Diabetes was the most common predisposing factor (27%), and one patient had had a recent invasive spinal procedure. Diagnosis was confirmed by MRI in the majority (63%). Median time from admission to confirmation of diagnosis was 6 days (1-15). *Staphylococcus aureus* was isolated from 5 patients. Choice of antibiotic and duration of treatment varied. At the time of this study 6 were walking independently, 4 with assistance, 1 was immobile and 1 was dead.

Discitis accounted for 0.023% of DGH medical and surgical admissions during this period. The diagnosis is often not considered prior to imaging. It is more commonly appreciated as a complication of spinal surgery or invasive spinal

procedures[1] however spontaneous discitis is associated with advanced age, diabetes and systemic infection[2]. Therefore in the setting of back pain, fever and elevated inflammatory markers infective discitis should be considered, especially in high risk groups.

1. Friedman JA, Maher CO, Quast LM, McClelland RL, Ebersold MJ. *Spontaneous disc space infections in adults. Surg Neurol* 2002;**57(2):**81-6.

2. Honan M, White GW, Eisenberd GM. *Spontaneous infectious discitis in adults. Am J Med* 1996;**100(1):**85-9.

3. Significance of ST segment elevation on the exercise electrocardiogram in patients without prior history of myocardial infarction.

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Background: Exercise induced ST segment elevation (STE) in patients without a history of myocardial infarction may be due to coronary artery spasm or stenosis.

Methods: Between January 1998 and Dec 2005 14,941 exercise stress tests were performed in our department for assessment of chest pain in patients without prior history of myocardial infarction or Q-waves on the resting electrocardiogram (ECG). Patients who developed STE during exercise or in the recovery phase were identified and a review of case histories was carried out.

Results: The incidence of STE was 0.78% (116/14941). The majority were male (92) with no age difference between the genders (male 56.4 +/-10.8 vs female 59.1years +/-11.9 p=0.287). Coronary angiography was performed in 108 patients and 6 had myocardial scintigraphy. All patients undergoing angiography had at least one severe coronary artery stenosis (>70%). The site of ST elevation was subsequently confirmed by angiography to be 93.5% predictive of a tight stenosis in the corresponding coronary artery. A left anterior descending (LAD) artery stenosis was seen in 40/41 (97.6%) patients who developed anterior STE. A right coronary artery or dominant left circumflex artery (LCx) stenosis was seen in 61/66 (92.4%) of patients who had inferior STE. Lateral STE was rare (1/116). Of the 6 who had scintigraphy 3 had reversible reperfusion defects which correlated with the site of STE and 2 had inferior STE with fixed inferior defects. One patient had a normal perfusion study.

Multivariate regression analysis was performed on those who underwent angiography. The only independent predictor of multi-vessel disease was increased time to resolution of STE with OR 1.097 (95% CI 1.014-1.187 p=0.021).

Conclusion: STE on the exercise treadmill is rare but specific for ischaemic heart disease. The territory of STE is predictive of a severe stenosis in the corresponding artery.

4. Risk Factors in Patients with an Out-of-Hospital Cardiac Arrest

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Objective: To determine the risk factors leading to death from Out-of-Hospital Cardiac Arrest (OHCA).

Methods: The Emergency Medical Service patient report forms from North and West Belfast were examined from 8/6/2005 to 28/3/2006 for any OHCA death as per Utstein criteria. The General Practitioner (GP) records and the post mortem result were obtained.

Results: There were 131 cases of OHCA; 76 were male (58%) mean age 68 years. At the time of death 51 (39%) lived alone and 112 (85%) had OHCA at home. A history of smoking occurred in 72 (55%), hypertension in 63 (48%), hypercholesterolaemia in 42 (32%), and diabetes mellitus in 24 (18%). The median time from the last GP attendance to death was 103 days (interquartile range 21-296 days). In only 6 (5%) cases was chest pain the reason for this attendance. A history of ischaemic heart disease was present in 48 (37%) and 28 (21%) had had a previous coronary angiogram. The use of Aspirin occurred in 56 (43%), B-blockers in 46 (35%), Statins in 54 (41%) and ACE inhibitors in 61 (47%) cases. At post mortem there were 27/42 (63%) with ≥moderate coronary atheroma in 3 coronary arteries and left ventricular hypertrophy in 26/42 (62%) cases.

Conclusion: OHCA remains difficult to predict with few patients presenting with prior chest pain. The high incidence of OHCA in individuals living alone at home will constrain improvements in survival.

5. Vasoactive intestinal polypeptide secreting pancreatic tumour (VIPoma) with recurrent metastases in a 46 year old male, long term survival after orthoptic liver transplantation.

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Case Report: A 46 year old male presented in 1981 with a two year history of profuse watery diarrhoea, three stone weight loss and fatigue. On examination he appeared gaunt with diffuse muscle weakness. Investigations revealed hypokalaemia - 2.5mmol/L (3.5-4.5), achlorydria and a raised vasoactive intestinal polypeptide (VIP) -500ng/L (0-100). Abdominal CT revealed a 5 cm pancreatic mass but with no focal liver pathology. A distal pancreatectomy was performed the histology of which confirmed an islet cell carcinoma (VIPoma).

His symptoms recurred one year post surgery, at which time liver metastases were demonstrated radiologically. He responded initially to three courses of Streptozotocin but ultimately developed resistance. For fifteen years his symptoms were controlled by octreotide injections, initially Sandostatin (subcut) and later Sandostatin LAR. The patient also underwent hepatic chemoembolisation.

By 1997 sixteen years after his initial surgery, treatment

failure occurred with a profound deterioration clinically and debilitating diarrhoea. No evidence of extra hepatic disease was found. After extensive discussion he underwent orthoptic liver transplantation which resulted in resolution of his symptoms[1,2].

Recurrence was noted two years post transplant in the para aortic lymph nodes but not in the liver. He remained mildly symptomatic with gradual deterioration of his general health and died 9 years after liver transplantation.

This case is the longest reported (25 years) survival of a VIPoma after initial diagnosis. The case also has several notable features including the absence of liver metastases at diagnosis, the variety of modalities of treatment used for symptom control including successful orthoptic liver transplantation.

1. Le Treut YP, Delpero JR, Dousset B, Cherqui D, Segol P, Mantion G, Hannoun L, Benhamou G, Launois B, Boillot O, Domergue J, Bismuth H. Results of liver transplantation in the treatment of metastatic neuroendocrine tumours. A 31 case French multicentric report. *Ann Surg* 1997;**225(4):** 355-64.

2. Lang H, Schlitt HJ, Schmidt H, Fleming P, Nashan B, Scheumann GF, Oldhafer KJ, Manns MP, Raab R. Total hepatectomy and liver transplantation for metastatic neuroendocrine tumours of the pancreas-a single centre experience with ten patients. Langenbecks *Arch Surg* 1999; **384 (4):**370-7.

6. Intravascular lymphoma – a clinical conundrum

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Case Report: A 75-year-old lady presented with a 5-week history of severe progressive fatigue; loss of appetite and thrombocytopenia. Scanning revealed an adrenal mass and hepatic abnormality suspicious of malignancy. Over the next 6 weeks the patient developed symptoms suggestive of Transient ischemic attacks. She suffered a myocardial infarction and developed pyrexia. Severe pain occured in the left hypochondrium. She developed deranged liver function and pancytopenia. Bone marrow biopsy revealed an intravascular large B Cell non-Hodgkin's lymphoma.

There was a good response to initial palliative treatment and subsequently the patient tolerated 6 cycles of intensive chemotherapy (PMitCEBO) plus Rituximab and intrathecal Methotrexate. Ten months after presentation remission was shown by follow-up CT Scan and Bone marrow biopsy.

Discussion: This patient demonstrates the varied symptoms of this rare form of lymphoma, a diagnosis typically made post mortem. So far the response to chemo and immunotherapy has been good indicating that early diagnosis and modern management may dramatically improve the outlook for patients with this aggressive lymphoma.

